PaperCut Payment Gateway Module - RBS WorldPay Quick Start Guide

This guide is designed to supplement the *Payment Gateway Module* documentation and provides a guide to installing, setting up and testing the *Payment Gateway Module* for use with RBS WorldPay's *Business Gateway Plus* service. The main Payment Gateway Module documentation may be downloaded from:

http://www.papercut.com/anonftp/pub/pcng/ext/payment-gateway/PaymentGatewayModule.pdf

Business Gateway Plus is a "hosted pay page" service by RBS WorldPay capable of processing many different card types and currencies.

IMPORTANT: *Before installing the payment gateway you should have a registered and active WorldPay account with Business Gateway Plus service activated. RBS WorldPay can assist with these tasks. The login information will be required during setup.*

Setup and testing should take around 30 minutes. No system level restart is required although the PaperCut application server will be restarted during the install process. If other administrators are using the PaperCut administration interface at this time it may be advisable to warn them of the pending restart.

This document is written assuming the reader has good server administration skills and is experienced with general PaperCut administration.

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1 Configuring Business Gateway Plus

The first stage of configuration is to set up RBS WorldPay to notify PaperCut when a transaction has taken place. This can be done via the web interface for Business Gateway Plus as follows:

1. Navigate to www.rbsworldpay.com/admin in a web browser.
2. Select **Business Gateway – Formerly WorldPay** and click **GO**.
3. Click the link named **Production Merchant Interface** .
4. Log into the merchant interface with the details supplied by RBS WorldPay.
5. Click **Installations** in the left menu.
6. Click the **Integration Setup : TEST** icon next to the installation that will be used for PaperCut payments. If you do not yet have an installation listed for this purpose contact RBS WorldPay for assistance with creating one.
7. Take note of the **Installation ID** .
8. The option **Customer description (for payment pages)** is the description users will see in the payment pages (i.e. what the user is paying for). Enter a suitable description, such as “Credit for print account”.
9. The option **Payment Response URL** is the URL to which RBS WorldPay will report transactions. Enter a URL like:

   ```
   https://papercut.myorg.edu:9192/rpc/gateway/rbs-worldpay/transaction
   ```

   where `papercut.myorg.edu` is a hostname that can be resolved from the internet. ‘3. Firewall Configuration’ has more information about ensuring that this address is accessible by RBS WorldPay and addresses firewall considerations.
10. Enable the checkbox titled **Payment Response enabled?** .
11. The option **Payment Response failure email address** is used to report transactions that could not be reported (e.g. the Payment Response URL was not accessible, or some kind of error occurred when sending information). Enter the email address that will be used to report these failures. Transaction failures may need to be manually investigated, reconciled and/or refunded.
12. Enable the checkbox titled **Attach HTTP(s) Payment Message to the failure email?** .
13. The option **Payment Response password** is a shared secret between PaperCut and RBS WorldPay. It is used to prevent unauthorized transactions being reported to the Payment Response URL. Choose a password and take note of it – it will be required when configuring the payment gateway module. We recommend using a random string of 8 or more characters. Enter the same password again in the **Confirm** box.

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14. Click **Save Changes**, and ensure that the settings were saved correctly.

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2 Installing the Payment Gateway Module

1. The *Payment Gateway Module* will function during the 40 day trial period. After this time the module must be licensed. If you have been supplied with a new license take the time to install it now. The license install procedure is documented in the PaperCut user manual chapter *Licensing and Support*.
2. Download the Payment Gateway Module from the PaperCut website at:

   http://www.papercut.com/anonftp/pub/pcng/ext/payment-gateway/pcng-payment-gateway-module.exe

3. Run the installer and install into the same directory as PaperCut. For PaperCut NG this is normally at:

   ```
   C:\Program Files\PaperCut NG\
   ```

4. Open the file at:

   ```
   [app-path]\server\lib-ext\ext-payment-gateway-rbs-worldpay.properties
   ```

   in a text editor such as Notepad.
5. Locate the option `rbs-worldpay.enabled=N` and change the `N` to a `Y`. This will enable the RBS WorldPay module.
6. Locate the option `rbs-worldpay.installation-id` and enter the installation id (the id of the installation configured in '1. Configuring Business Gateway Plus').
7. Ensure that `rbs-worldpay.test-mode` is set to `Y`. This will ensure that no money changes hands during the initial test transactions.
8. Locate the line `rbs-worldpay.currency` and enter the 3 digit ISO currency code for your local currency. This must be the same currency being used within PaperCut. The currency must also have been enabled in your Business Gateway Plus account by RBS WorldPay.
9. Configure other options in this file as discussed in the General Configuration Options section of the Payment Gateway Module documentation, or by referring to the comments in the file itself. Options include limits on the amount to transfer, access groups and custom error messages. You may like to enable a group restriction to limit access to administrators until configuration is complete.
10. Save the file and exit the text editor.
11. Restart the *PaperCut Application Server* service via **Control Panel -> Administrative Tools -> Services** and wait 30 seconds.
12. Check at the end of the log file at `[app-path]\server\logs\server.log` to see if there are any obvious error messages that would indicate something is wrong.

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3 Firewall Configuration

The RBS WorldPay server communicates with the PaperCut server via HTTPS on port 9192. You will need to ensure that RBS WorldPay's servers are able to contact the PaperCut server on the hostname used for the **Payment Response URL** setting configured in '1. Configuring Business Gateway Plus'. This will usually involve the following network changes:

1. Set up a public DNS entry to ensure that the PaperCut server is publicly accessible via a friendly name (e.g. `papercut.myorg.edu`). This will be the same name used for the **Payment Response URL** in '1. Configuring Business Gateway Plus'.
2. Set up external firewall rules allowing traffic from the RBS WorldPay server IP address range to the PaperCut server on port 9191. Common methods include adding a "TCP Open" entry to your firewall and/or using port forwarding.
   It is important that the firewall policy only applies to external hosts. Internal hosts will always require access to the PaperCut server.
   During testing it may be appropriate to allow access from any host then lock down access to the RBS WorldPay servers once their address range has been determined. Once a test transaction has been made the RBS WorldPay server IP address(es) can be found in the payment gateway event log file (located at `[app-path]/server/logs/payment-gateway/event.log`).
   At the time of writing this address range was: `155.136.68.0/255`.
3. Accessing the following URL in a web browser will display a simple confirmation page containing the current time, and can be used to test external access:

   ```
   https://papercut.myorg.edu:9192/rpc/gateway/rbs-worldpay/check
   ```

   (where `papercut.myorg.edu` is the externally accessible hostname of your PaperCut server).

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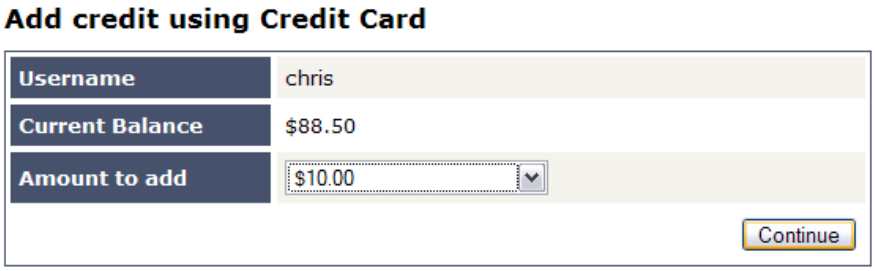
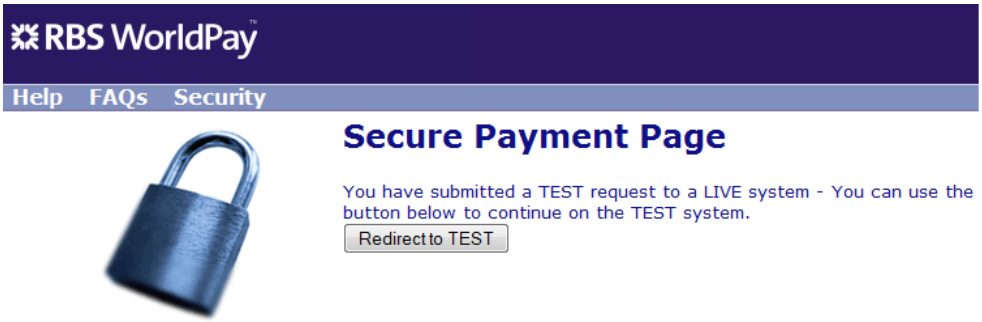
4 Testing

The Payment Gateway Module for RBS WorldPay is now ready for testing. This test will involve performing a test transaction with a real credit card. The test payment pages will run through the transaction as if it were a real one, but no money will change hands.

4. Log into the PaperCut user web interface at http://papercut:9191/user
5. A new link called **Add Credit** should appear in the left menu. Click this link.
6. Select an amount to add and press **Add Value**.

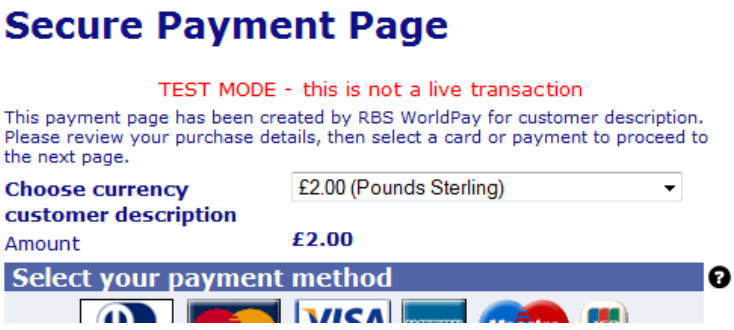


7. You should now be redirected to the RBS WorldPay hosted payment pages for payment. First you should see a message indicating that you will be redirected to the test site.


RBS WorldPay
Help FAQs Security
Secure Payment Page
You have submitted a TEST request to a LIVE system - You can use the button below to continue on the TEST system.
Redirect to TEST

Click **Redirect to TEST**. If you do not see this message, do not continue (test mode may not be active). Check the installation settings in the merchant interface to ensure that the installation is in **TEST** mode.

8. Continue to enter the payment details for a real credit card.


Secure Payment Page
TEST MODE - this is not a live transaction
This payment page has been created by RBS WorldPay for customer description. Please review your purchase details, then select a card or payment to proceed to the next page.
Choose currency
£2.00 (Pounds Sterling)
customer description
Amount
£2.00
Select your payment method

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You should see a message at the top of the page reading **TEST MODE – this is not a live transaction**. If you do not see this message, do not continue (test mode may not be active). Check the installation settings in the merchant interface to ensure that the installation is in **TEST** mode.

9. After completing the payment details and pressing **Make Payment** you should see a receipt page with a success message and some reference numbers. You should also receive an email receipt shortly. Note that the default receipt page does not contain a link back to the PaperCut web interface. For information about adding a link back to PaperCut via a customized receipt page see '7. Advanced Customization'.

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5 Security

Transaction details are sent from RBS WorldPay to PaperCut via an HTTPS POST (to the 'Payment Response URL'). This request includes the configured shared secret ('Payment Response password'). Because the POST request is sent "out of band" (i.e. not along with the user), users are not exposed to the shared secret.

While these transaction requests do not contain full card numbers, they may contain other information considered to be private, such as the billing address or email address. One important point to note is that RBS WorldPay does not require a trusted certificate when submitting transaction details over HTTPS. This is why the default, self-signed certificate used in PaperCut can be used to accept transactions from RBS WorldPay over HTTPS. This does however mean that the transaction POSTs are open to man-in-the-middle or hostname spoofing attacks. That is, if an attacker can intercept traffic to the 'Payment Response URL' they will have access to the contents. In most environments this is not a likely scenario.

In addition to firewall configuration limiting access to the transaction POST URL (mentioned in '3. Firewall Configuration') there is an application level setting to restrict access to an IP address or range. This option is available via the config file (`ext-payment-gateway-rbs-worldpay.properties`) and is titled '`rbs-worldpay.postback-allowed-ip`'. Care should be taken to ensure that legitimate requests are not blocked, as this would result in users having their card charged but no value added to their account.

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6 Go-Live

Your payment gateway module integration with RBS WorldPay is now complete, and the payment pages can now be put into 'live' mode.

RBS WorldPay require filling out a web form and may need to test the integration before it can go live. To set this process in motion:

1. Log into the RBS WorldPay merchant web interface and select **Installations** from the left menu.
2. Click the tick icon in the **Request Activation** column next to the installation id that will be used for the PaperCut hosted payment pages.
3. The next page is a form should be a form requesting information about testing your 'website'. The activation process is, unfortunately, designed for a 'web shop' style integration, and doesn't take into account an integration such as this where the interface is password protected and not necessarily available over the internet. We recommend filling out the form and making this clear in the notes field, if only to provide notification that you intend to take the installation live. Then follow up with your contact at RBS WorldPay and/or activations@rbsworldpay.com to let them know that you'd like to activate an installation that isn't a web shop.

After RBS WorldPay has confirmed that the installation is live, the PaperCut payment gateway module can be configured to submit 'live' transactions:

1. Edit the config file '`ext-payment-gateway-rbs-worldpay.properties`' again and set the value of the option '`rbs-worldpay.test-mode`' to '`N`'.
2. If a group restriction was enabled in '2. Installing the Payment Gateway Module' it can now be removed or altered to allow access to end-users.

The system is now available for end users to make payments. You may like to perform a test as a user with a real credit card to ensure that the system is working as expected.

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7 Advanced Customization

7.1 Hosted payment page receipt

The default receipt page displayed to the user after entering their payment details does not contain a link back to the PaperCut web interface. It is however possible to customize the payment pages (including the receipt page) via the RBS WorldPay merchant web interface (click **Edit Payment Pages** at the bottom of the **Installations** page).

For details about editing payment pages consult the documentation from RBS WorldPay. Once you are ready to customize the receipt page you may create a link back to the PaperCut user web interface by using the '`MC_return-url`' custom parameter. This link will send the user back to the '**Add Value**' page and display a confirmation or error message according to the result of the transaction.

The custom parameter may be used to create a link in the custom receipt page as follows:

```
<a href="<WPDISPLAY ITEM='MC_return-url'">return</a>
```

The default message displayed may also be replaced by specifying a message using the '`message`' parameter, for example to provide more details about a special error condition:

```
<a href="<WPDISPLAY ITEM='MC_return-url'>&message=Optional%20message.">
  return
</a>
```

7.2 Preferred Merchant Code

RBS WorldPay assigns a merchant code from an available list at the time of payment. To elect a preferred merchant code to use, open the payment gateway configuration file at:

```
[app-path]\server\lib-ext\ext-payment-gateway-rbs-worldpay.properties
```

Specify a preferred merchant code via the `rbs-worldpay.merchant-code` configuration item.

Note: The merchant code specified indicates a preference for this code. RBS WorldPay does not guarantee it will be used.

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8 Troubleshooting

Administrators may find information in the following log files useful when trying to troubleshoot setup/configuration problems or issues reported by end-users.

Payment Gateway Transaction Log:
`[app-path]\server\logs\payment-gateway\transaction.log`
This log contains a list of successful transactions in tab-delimited form.

Payment Gateway Event Log:
`[app-path]\server\logs\payment-gateway\event.log`
This log contains payment gateway specific error messages and events.

Application Log:
`[app-path]\server\logs\server.log`
This log contains general application specific error messages and events.

Please feel free to contact the PaperCut Software Development Team via support@papercut.com if you require assistance.

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